



Birds at John Muir National Historic Site

The Question: What bird species are present and breed at John Muir National Historic Site (JOMU)?

As part of national efforts to inventory vertebrates and vascular plants and to conduct long-term monitoring of critical natural resources, the National Park Service initiated bird surveys at Mt. Wanda of JOMU. The goal of the project was to develop a comprehensive list of birds present at the park especially during the peak breeding season. The information will help inform the park about the state of its natural resources over the long term and to help identify possible management activities.

The Project: Survey birds during the peak breeding season and track their status through long-term monitoring.

Surveys are conducted along 14 pointcount locations, three times each year between May and June by park staff and/or volunteers. The stations were established in the spring of 2001 by PRBO Conservation Science and are spaced every 200 meters along a transect through coast live oak forests, blue oak woodlands and grasslands of Mt. Wanda. Surveys are started at sunrise and continue for approximately four hours, as long as weather conditions are favorable, to capture peak bird activity. Each point is surveyed for five minutes and all bird detections by sight, song and call are recorded. For all detections, the distance of the bird is also recorded, within a 50-meter radius of the point or beyond in order to calculate population density estimates. Any evidence of breeding is also recorded (e.g., material carry, food carry, copulation, nests).

Results: A total of 98 birds have been documented at JOMU.

Surveys have documented at least 99 species of birds at the John Muir National Historical Site including Mt. Wanda (see Table 1). This includes flyovers, breeding, and non-breeding species. Forty-one species are likely breeding (confirmed or probable) on Mt. Wanda based on behavioral observations made during the surveys. Behavior associated with breeding may include nest building, presence of juveniles, territorial behavior, courtship behavior (e.g. copulation). Additional species are likely breeding on Mt. Wanda but documentation is still lacking. Table 1 (following text) includes seven breeding birds considered "Species of Continental Importance" in the Pacific Avifaunal Biome by Partners in Flight including: Oak Titmouse, Band-tailed Pigeon, Allen's Hummingbird, Chestnut-backed Chickadee, California Towhee, Steller's Jay, and Western Scrub Jay.

Acknowledgements

Much of this work would not be possible without Cheryl Abel, Park Ranger, John Muir National Historic Site. PRBO Conservation Science was also instrumental in establishing the surveys and continuing to support long-term monitoring.

Additional Resources

San Francisco Bay Area Inventory and Monitoring Program: <http://www1.nature.nps.gov/im/units/sfan/index.htm>
PRBO Conservation Science: <http://www.prbo.org>

For More Information

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The Anna's Hummingbird (*Calypte anna*) is one of 99 bird species documented at John Muir National Historic Site.

Common Name	Breeding Status	Common Name	Breeding Status
Double-crested Cormorant	NA	Oak Titmouse	3
Great Blue Heron	NA	Chestnut-backed Chickadee*	3
Canada Goose	NA	Bushtit	3
Mallard	NA	White-breasted Nuthatch	3
Cooper's Hawk	NA	Brown Creeper	3
Sharp-shinned Hawk	NA	Blue-gray gnatcatcher	3
Red-tailed Hawk	2	Bewick's Wren	3
Red-shouldered Hawk	3	House Wren	3
Ferruginous Hawk	NA	Golden-crowned Kinglet	NA
Northern Harrier	1	Ruby-crowned Kinglet	NA
American Kestrel	2	Swainson's Thrush	0
White-tailed Kite	3	Western Bluebird	3
Osprey	NA	American Robin	1
Turkey Vulture	3	Hermit Thrush	NA
Wild Turkey	3	Varied Thrush*	NA
California Quail	1	Northern Mockingbird	3
Rock Pigeon	1	European Starling	3
Mourning Dove	2	Cedar Waxwing	NA
Band-tailed Pigeon*	1	Orange-crowned Warbler	NA
Barn Owl	NA	Wilson's Warbler	1
Western Screech-owl	3	Black-throated Gray Warbler*	NA
Great-horned Owl	1	Hermit Warbler*	NA
White-throated Swift	NA	Yellow Warbler	NA
Anna's Hummingbird	3	Yellow-rumped Warbler	NA
Allen's Hummingbird	1	Townsend's Warbler	NA
Rufous Hummingbird	NA	Western Tanager	NA
Northern Flicker	0	California Towhee	3
Acorn Woodpecker	3	Spotted Towhee	3
Nuttall's Woodpecker	3	Chipping Sparrow	3
Downy Woodpecker	2	Lark Sparrow	NA
Hairy Woodpecker	NA	Savannah Sparrow	NA
Red-breasted Sapsucker	NA	Golden-crowned Sparrow*	NA
Western Wood-pewee	2	White-crowned Sparrow	NA
Pacific Slope Flycatcher	2	Fox Sparrow*	NA
Ash-throated Flycatcher	3	Song Sparrow	NA
Black Phoebe	3	Dark-eyed Junco	3
Olive-sided Flycatcher	NA	Black-headed Grosbeak	2
Say's Phoebe	NA	Lazuli Bunting	NA
Cassin's Vireo	1	Western Meadowlark	NA
Warbling Vireo	2	Hooded Oriole	3
Hutton's Vireo	2	Bullock's Oriole	NA
Western Scrub-Jay*	3	Red-winged Blackbird	NA
American Crow	2	Pine Siskin	NA
Steller's Jay*	3	Lawrence's Goldfinch*	NA
Common Raven	NA	American Goldfinch	NA
Barn Swallow	0	Lesser Goldfinch	3
Cliff Swallow	0	House Finch	3
Tree Swallow	0	Purple Finch	NA
Violet-green Swallow	3	House Sparrow	1
Wrentit*	NA		

Table 1. Bird species documented for John Muir National Historic Site. Breeding Status Key: NA (no data gathered on breeding); 0 (no evidence of breeding); 1 (possible breeder); 2 (probable breeder); 3 (confirmed breeder on Mt. Wanda). Note: * Species of Continental Importance in the Pacific Avifaunal Biome by Partners in Flight (NA Landbird Conservation Plan 2004).

The Pacific Coast Science and Learning Center is one of 15 centers across the country working to increase the effectiveness and communication of research and science results in the national parks by facilitating the use of parks for scientific inquiry, supporting science-informed decision making, communicating relevance and providing access to research knowledge, and promoting resource stewardship through partnerships.